

IN THE CLAIMS

Please amend the claims as follows:

1-7. Canceled.

8. (currently amended) Device for the pneumatic conveyance of powdered material, ~~comprising: especially powder coating material, with a cylindrical chamber, which can be alternately connected to by a scalable inlet with a reservoir and by a scalable outlet with a delivery line, which has said chamber being at least partially defined by a bordering wall formed by a gas-permeable filter element, and to which negative pressure can be applied through the gas-permeable filter element to draw gas out of the chamber and to fill the chamber with material from the reservoir through the open inlet with the outlet closed, and into which compressed gas can be admitted through the gas permeable element into the chamber to force the material, which had previously been drawn into the chamber, out of the chamber to into the delivery line through the open outlet with the inlet closed, characterized by the fact the filter element (50) is designed as comprising a rigid hollow cylinder and surrounds at least a portion of the chamber (10, 12).~~

9-27. Canceled.

Please add the following new claims:

28. (New) The device of claim 8 wherein the gas-permeable element comprises a filter element.

29. (New) The device of claim 8 wherein the gas-permeable element comprises a sintered material.

30. (New) The device of claim 29 wherein said material comprises sintered plastic powder.

31. (New) The device of claim 30 wherein said material comprises a pore size of less than about 20 micrometers.

32. (New) The device of claim 30 wherein said material comprises a pore size of less than about 5 micrometers.

33. (New) The device of claim 8 comprising a source of pressurized purge gas, and a valve for admitting purge gas into the chamber through a radial opening in said wall.

34. (New) The device of claim 33 wherein the compressed gas that passes through the gas-permeable wall and forces material out the chamber also cleans an interior surface of the gas-permeable wall.

35. (New) The device of claim 8 wherein said cylinder has a longitudinal axis, and further wherein material enters the chamber from one axial end thereof and exits the chamber from the opposite axial end thereof.

36. (New) The device of claim 35 comprising an inlet valve and an outlet valve, said inlet valve controlling flow of material into the chamber and said outlet valve controlling flow of material out of the chamber.

37. (New) The device of claim 36 wherein the chamber is further defined by an elastic wall section at each end of the gas-permeable element.

38. (New) The device of claim 37 wherein said inlet valve comprises a first pinch valve and said outlet valve comprises a second pinch valve, each pinch valve being operable to close its respective end of the chamber by pinching off flow through its associated elastic wall section.

39. (New) Device for pneumatic conveyance of material, the device comprising: a hollow rigid element that is gas-permeable, said element having first and second ends along a longitudinal axis, and first and second elastic members with each said elastic member being disposed at a respective end of said rigid element.

40. (New) The device of claim 39 wherein said first and second elastic members lie coaxial with said rigid element longitudinal axis to define an interior material flow path or conveyance route between an inlet end of the device and an outlet end of the device.

41. (New) The device of claim 40 wherein said inlet and outlet ends are further defined by first and second pinch valves that are respectively disposed on inlet and outlet sides of said rigid element, said pinch valves controlling flow of material through the device by opening and closing said elastic members.

42. (New) The device of claim 39 wherein said rigid element and said elastic members together define a chamber that alternately receives material at an inlet and discharges material at an outlet in response to alternating application of negative and positive pressure applied to the chamber volume through said gas-permeable element.

43. (New) The device of claim 42 wherein said inlet and outlet are coaxial with said longitudinal axis.

44. (New) The device of claim 39 comprising a source of purge gas, and a valve for admitting purge gas into the chamber through a radial opening in said rigid element.

45. (New) The device of claim 39 wherein said element is a generally hollow cylinder.

46. (New) The device of claim 39 wherein said rigid gas-permeable element comprises a pore size of less than about five micrometers.

47. (New) The device of claim 39 wherein said rigid gas-permeable element comprises sintered plastic.

48. (New) Device for pneumatic conveyance of powdered material, comprising:
a chamber that alternately is filled with powder and emptied, the chamber being at least partially defined by a gas-permeable material such that alternating application of positive and negative pressure to the chamber interior through the gas-permeable material conveys powder into and out of the chamber, a first end of the cylinder being adapted to receive powder from a supply inlet and a second end of the cylinder being adapted to convey powder from the chamber to a delivery outlet, and a purge arrangement for applying pressurized purge gas into the chamber interior with at least a portion of the purge gas entering the chamber interior other than by filtering through said gas-permeable material.

49. (New) The device of claim 48 wherein pressurized gas also filters through said gas-permeable material into the chamber interior as part of a purge operation.

50. (New) The device of claim 48 wherein said purge arrangement comprises a valve that controls pressurized purge gas into the chamber interior through a port formed in the gas-permeable cylinder.

51. (New) The device of claim 50 wherein said port is radial relative to a longitudinal axis of the chamber.

52. (New) The device of claim 50 wherein said valve comprises a flexible member that is elastically deformed by flow of the pressurized purge gas through the valve to open said port, and closes said port when said pressurized purge gas is not applied to the valve.

53. (New) The device of claim 52 comprising a check valve between a source of said pressurized purge gas and said diaphragm.

54. (New) The device of claim 48 wherein said gas-permeable material is formed as a rigid hollow cylinder.

55. (New) The device of claim 48 wherein said gas-permeable material comprises sintered plastic.

56. (New) The device of claim 48 wherein

57. (New) A method for conveying powdered material, comprising:
defining a metering volume;

alternately filling and emptying the metering volume with material by alternately applying positive and negative pressure to the metering volume through a gas-permeable material, such that the application of negative pressure to the metering volume sucks material into the volume and the application of positive pressure to the metering volume forces material out of the volume, and

purging the metering volume by applying pressurized purge gas into the metering volume other than by filtering the purge gas through the gas-permeable material.

58. (New) The method of claim 57 comprising additionally purging the metering volume by applying purge gas through said gas-permeable material.

59. (New) The method of claim 57 wherein said purge gas is introduced radially into the metering volume relative to a longitudinal axis of the metering volume.